

Title (en)
USE OF LONGITUDINALLY DISPLACED NANOSCALE ELECTRODES FOR VOLTAGE SENSING OF BIOMOLECULES AND OTHER ANALYTES IN FLUIDIC CHANNELS

Title (de)
VERWENDUNG VON LÄNGSEITS VERSETZTEN NANOGROSSEN ELEKTRODEN ZUR SPANNUNGSMESSUNG VON BIOMOLEKÜLEN UND ANDEREN ANALYTEN IN FLUIDISCHEN KANÄLEN

Title (fr)
UTILISATION D'ÉLECTRODES NANOMÉTRIQUES LONGITUDINALEMENT DÉPLACÉES POUR UNE DÉTECTION DE TENSION DE BIOMOLÉCULES ET AUTRES ANALYTES DANS DES CANAUX FLUIDIQUES

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Application
EP 09807476 A 20090903

Priority
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• US 9388508 P 20080903

Abstract (en)
[origin: WO2010028140A2] Devices and methods for detecting an analyte are provided. Devices for voltage sensing of analytes may comprise a fluidic channel defined in a substrate, a pair of sensing electrodes disposed in a fluidic channel for sensing voltage therein, and a pair of electromotive electrodes for applying potential along the fluidic channel. The pair of sensing electrodes may include a first and second sensing electrode disposed at two discrete locations along the length of the fluidic channel and the pair of electromotive electrodes may be disposed at a first end and a second end of the fluidic channel. The fluidic channel may include a nanochannel or a microchannel. Methods for detecting an analyte may include the steps of disposing the analyte in a fluidic channel; applying a potential along the fluidic channel to generate an electrophoretic force therein such that the analyte is translocated from a first end of the fluidic channel to a second end of the fluidic channel; and measuring a voltage signal between a pair of sensing electrodes disposed in the fluidic channel as the analyte moves past the sensing electrodes.

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CPC (source: EP US)
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